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## Patent Abstracts of Japan

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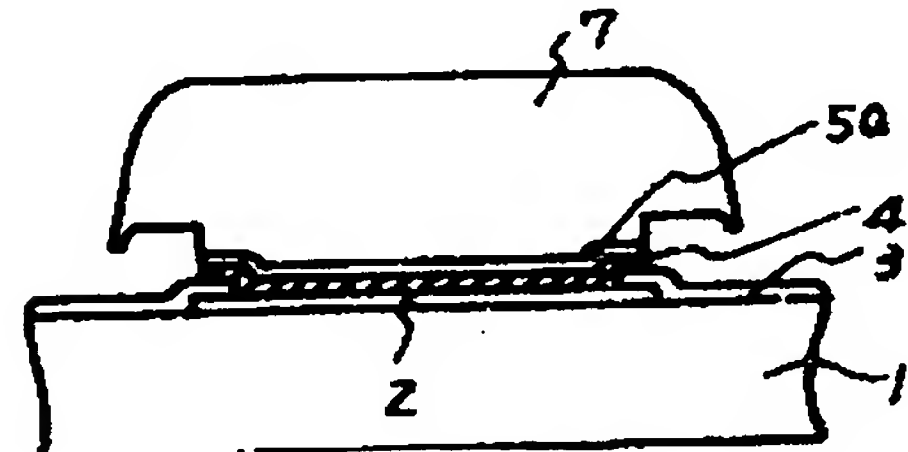
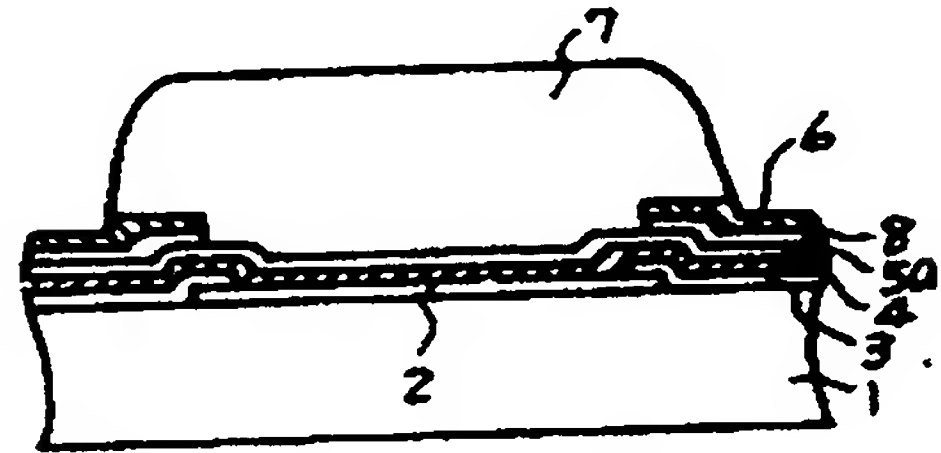
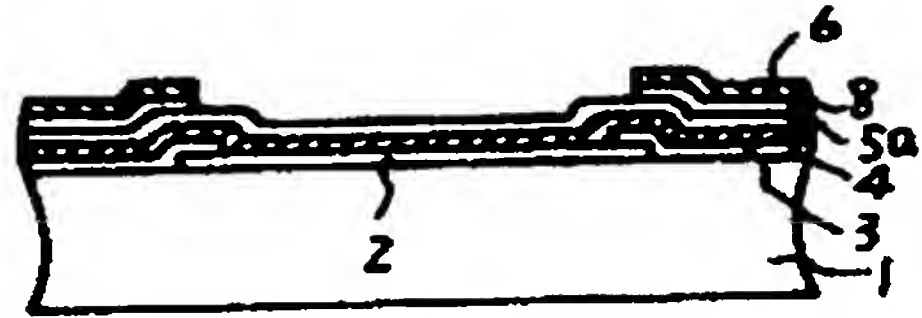
APPLICATION DATE : 28-01-80  
APPLICATION NUMBER : 55008613

APPLICANT : SEIKO INSTR & ELECTRONICS LTD;

INVENTOR : OGAWA KENICHI;

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TITLE : GOLD BUMP FORMING METHOD OF SEMICONDUCTOR DEVICE



ABSTRACT : PURPOSE: To contrive an increase of junction strength by removing a conducting metal layer and subsequently forming the Au bump by applying an electroplating, after a three layers structure of a groundwork metal, intermediate metal and conducting metal is accumulated on a substrate and a resist mask is mounted.

CONSTITUTION: An  $\text{SiO}_2$  film 3 is formed with an opening to allow the Cr groundwork layer 4, Au intermediate layer 5a and Cu conductive layer 8 to be layer-built on an Al electrode 2 on the Si substrate 1. The resist mask 6 is applied to cause the Cu layer 8 to be etched, the Au 5a to be exposed and the Au bump to be formed by the electroplating. Then, by removing the resist mask 6 and etching the Cu 8, Au 5a, Cr 4 with the Au bump 7 as a mask, the Au bump 7 extremely high in junction strength is finished. With such a method, the adhesive strength is not decreased at 11 by the remained resist thin film as conventional.

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